

#8

ENTERED



PCT10

## RAW SEQUENCE LISTING

DATE: 07/11/2002

PATENT APPLICATION: US/10/018,497A

TIME: 13:30:44

Input Set : A:\EP.txt

Output Set: N:\CRF3\07112002\J018497A.raw

```

3 <110> APPLICANT: Lex M. Cowsert
4     ISIS PHARMACEUTICALS, INC.
6 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF G-ALPHA-I3 EXPRESSION
8 <130> FILE REFERENCE: RTSP-0046
--> 10 <140> CURRENT APPLICATION NUMBER: US/10/018,497A
--> 10 <141> CURRENT FILING DATE: 2001-12-12
10 <150> PRIOR APPLICATION NUMBER: US 09/339,775
11 <151> PRIOR FILING DATE: 1999-06-25
13 <160> NUMBER OF SEQ ID NOS: 47
15 <210> SEQ ID NO: 1
16 <211> LENGTH: 1543
17 <212> TYPE: DNA
18 <213> ORGANISM: Homo sapiens
20 <220> FEATURE:
21 <221> NAME/KEY: CDS
22 <222> LOCATION: (9)..(1073)
24 <400> SEQUENCE: 1
25     gaattcgg atg ggc tgc acg ttg agc gcc gaa gac aag gcg gca gtg           47
26         Met Gly Cys Thr Leu Ser Ala Glu Asp Lys Ala Ala Val
27             1             5             10
29     gag cga agc aag atg atc gac cgc aac tta cgg gag gac ggg gaa aaa           95
30     Glu Arg Ser Lys Met Ile Asp Arg Asn Leu Arg Glu Asp Gly Glu Lys
31         15             20             25
33     gcg gcc aaa gaa gtg aag ctg ctg cta ctc ggt gct gga gaa tct ggt           143
34     Ala Ala Lys Glu Val Lys Leu Leu Leu Leu Gly Ala Gly Glu Ser Gly
35         30             35             40             45
37     aaa agc acc att gtg aaa cag atg aaa atc att cat gag gat ggc tat           191
38     Lys Ser Thr Ile Val Lys Gln Met Lys Ile Ile His Glu Asp Gly Tyr
39             50             55             60
41     tca gag gat gaa tgt aaa caa tat aaa gta gtt gtc tac agc aat act           239
42     Ser Glu Asp Glu Cys Lys Gln Tyr Lys Val Val Val Tyr Ser Asn Thr
43         65             70             75
45     ata cag tcc atc att gca atc ata aga gcc atg gga cgg cta aag att           287
46     Ile Gln Ser Ile Ile Ala Ile Ile Arg Ala Met Gly Arg Leu Lys Ile
47         80             85             90
49     gac ttt ggg gaa gct gcc agg gca gat gat gcc cgg caa tta ttt gtt           335
50     Asp Phe Gly Glu Ala Ala Asp Ala Asp Ala Arg Gln Leu Phe Val
51         95             100             105
53     tta gct ggc agt gct gaa gaa gga gtc atg act cca gaa cta gca gga           383
54     Leu Ala Gly Ser Ala Glu Glu Gly Val Met Thr Pro Glu Leu Ala Gly
55     110             115             120             125
57     gtg att aaa cgg tta tgg cga gat ggt ggg gta caa gct tgc ttc agc           431
58     Val Ile Lys Arg Leu Trp Arg Asp Gly Gly Val Gln Ala Cys Phe Ser

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59		130		135		140		
61	aga tcc agg gaa tat cag ctc aat gat tct gct tca tat tat cta aat							479
62	Arg Ser Arg Glu Tyr Gln Leu Asn Asp Ser Ala Ser Tyr Tyr Leu Asn							
63		145		150		155		
65	gat ctg gat aga ata tcc cag tct aac tac att cca act cag caa gat							527
66	Asp Leu Asp Arg Ile Ser Gln Ser Asn Tyr Ile Pro Thr Gln Gln Asp							
67		160		165		170		
69	gtt ctt cgg acg aga gtg aag acc aca ggc att gta gaa aca cat ttc							575
70	Val Leu Arg Thr Arg Val Lys Thr Thr Gly Ile Val Glu Thr His Phe							
71		175		180		185		
73	acc ttc aaa gac cta tac ttc aag atg ttt gat gta ggt ggc caa aga							623
74	Thr Phe Lys Asp Leu Tyr Phe Lys Met Phe Asp Val Gly Gly Gln Arg							
75	190		195		200		205	
77	tca gaa cga aaa aag tgg att cac tgt ttt gag gga gtg aca gca att							671
78	Ser Glu Arg Lys Lys Trp Ile His Cys Phe Glu Gly Val Thr Ala Ile							
79		210		215		220		
81	atc ttc tgt gtg gcc ctc agt gat tat gac ctt gtt ctg gct gag gac							719
82	Ile Phe Cys Val Ala Leu Ser Asp Tyr Asp Leu Val Leu Ala Glu Asp							
83		225		230		235		
85	gag gag atg aac cga atg cat gaa agc atg aaa ctg ttt gac agc att							767
86	Glu Glu Met Asn Arg Met His Glu Ser Met Lys Leu Phe Asp Ser Ile							
87		240		245		250		
89	tgt aat aac aaa tgg ttt aca gaa act tca atc att ctc ttc ctt aac							815
90	Cys Asn Asn Lys Trp Phe Thr Glu Thr Ser Ile Ile Leu Phe Leu Asn							
91		255		260		265		
93	aag aaa gac ctt ttt gag gaa aaa ata aag agg agt ccg tta act atc							863
94	Lys Lys Asp Leu Phe Glu Glu Lys Ile Lys Arg Ser Pro Leu Thr Ile							
95		270		275		280		285
97	tgt tat cca gaa tac aca ggt tcc aat aca tat gaa gag gca gct gcc							911
98	Cys Tyr Pro Glu Tyr Thr Gly Ser Asn Thr Tyr Glu Glu Ala Ala Ala							
99		290		295		300		
101	tat att caa tgc cag ttt gaa gat ctg aac aga aga aaa gat acc aag							959
102	Tyr Ile Gln Cys Gln Phe Glu Asp Leu Asn Arg Arg Lys Asp Thr Lys							
103		305		310		315		
105	gag atc tat act cac ttc acc tgt gcc aca gac acg aag aat gtg cag							1007
106	Glu Ile Tyr Thr His Phe Thr Cys Ala Thr Asp Thr Lys Asn Val Gln							
107		320		325		330		
109	ttt gtt ttt gat gct gtt aca gat gtc atc att aaa aac aac tta aag							1055
110	Phe Val Phe Asp Ala Val Thr Asp Val Ile Ile Lys Asn Asn Leu Lys							
111		335		340		345		
113	gaa tgt gga ctt tat tga gaagcatgga tgtagtgaa agttactaca gtgtggagtg							1113
114	Glu Cys Gly Leu Tyr							
115		350						
117	ttgagaccag acaccttttg ctgtctcatg gggcagctac aagcatgaac gggaccaggg							1173
119	aatggcagca gcatgcagaa tcttagcact ctttagcaca atatttttgta ttaggggaact							1233
121	tttaattgac atgagatgct aaagtcagac attggaattg gaagaactat aaagtgtgat							1293
123	togatcgtca agacatcact tggatttctt aatcttaaca tgcttatgga agatgtgaag							1353
125	ttgaggtgct gcattctaga acttcatatg tagcttactc tttttttccc cccttcttaa							1413
127	accaccagtg gttcattttt aagggtttttt catcaagaga agaataactt tactaaattt							1473

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129   tattttcttta ttgtcaaaag aatcttttatt aaaacaaaca atcttaacta tgaaaaaaaaa 1533
131   agccgaattc 1543
134 <210> SEQ ID NO: 2
135 <211> LENGTH: 23
136 <212> TYPE: DNA
137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: PCR Primer
142 <400> SEQUENCE: 2
143   ggacggctaa agattgactt tgg 23
146 <210> SEQ ID NO: 3
147 <211> LENGTH: 23
148 <212> TYPE: DNA
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: PCR Primer
154 <400> SEQUENCE: 3
155   cagcactgcc agctaaaaca aat 23
158 <210> SEQ ID NO: 4
159 <211> LENGTH: 22
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: PCR Probe
166 <400> SEQUENCE: 4
167   agggcagatg atgcccggca at 22
170 <210> SEQ ID NO: 5
171 <211> LENGTH: 19
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: PCR Primer
178 <400> SEQUENCE: 5
179   gaaggtgaag gtcggagtc 19
182 <210> SEQ ID NO: 6
183 <211> LENGTH: 20
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: PCR Primer
190 <400> SEQUENCE: 6
191   gaagatggtg atgggatttc 20
194 <210> SEQ ID NO: 7
195 <211> LENGTH: 20
196 <212> TYPE: DNA
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: PCR Probe
202 <400> SEQUENCE: 7

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203      caagcttccc gttctcagcc                                20
206 <210> SEQ ID NO: 8
207 <211> LENGTH: 18
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Antisense Oligonucleotide
214 <400> SEQUENCE: 8
215      atcttgcttc gctccact                                18
218 <210> SEQ ID NO: 9
219 <211> LENGTH: 18
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Antisense Oligonucleotide
226 <400> SEQUENCE: 9
227      attgtttaca ttcacacct                                18
230 <210> SEQ ID NO: 10
231 <211> LENGTH: 18
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Antisense Oligonucleotide
238 <400> SEQUENCE: 10
239      caatctttag ccgtccca                                18
242 <210> SEQ ID NO: 11
243 <211> LENGTH: 18
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Antisense Oligonucleotide
250 <400> SEQUENCE: 11
251      gactccttct tcagcact                                18
254 <210> SEQ ID NO: 12
255 <211> LENGTH: 18
256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Antisense Oligonucleotide
262 <400> SEQUENCE: 12
263      ccaccatctc gccataac                                18
266 <210> SEQ ID NO: 13
267 <211> LENGTH: 18
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Antisense Oligonucleotide
274 <400> SEQUENCE: 13
275      aatgtagtta gactggga                                18

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TIME: 13:30:44

Input Set : A:\EP.txt

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```

278 <210> SEQ ID NO: 14
279 <211> LENGTH: 18
280 <212> TYPE: DNA
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Antisense Oligonucleotide
286 <400> SEQUENCE: 14
287   catcttgctg agttggaa                                18
290 <210> SEQ ID NO: 15
291 <211> LENGTH: 18
292 <212> TYPE: DNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Antisense Oligonucleotide
298 <400> SEQUENCE: 15
299   tcactctcgt ccgaagaa                                18
302 <210> SEQ ID NO: 16
303 <211> LENGTH: 18
304 <212> TYPE: DNA
305 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
308 <223> OTHER INFORMATION: Antisense Oligonucleotide
310 <400> SEQUENCE: 16
311   tgggtcttcac tctcgtec                                18
314 <210> SEQ ID NO: 17
315 <211> LENGTH: 18
316 <212> TYPE: DNA
317 <213> ORGANISM: Artificial Sequence
319 <220> FEATURE:
320 <223> OTHER INFORMATION: Antisense Oligonucleotide
322 <400> SEQUENCE: 17
323   acaatgcctg tgggtcttc                                18
326 <210> SEQ ID NO: 18
327 <211> LENGTH: 18
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: Antisense Oligonucleotide
334 <400> SEQUENCE: 18
335   gtgtttctac aatgcctg                                18
338 <210> SEQ ID NO: 19
339 <211> LENGTH: 18
340 <212> TYPE: DNA
341 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
344 <223> OTHER INFORMATION: Antisense Oligonucleotide
346 <400> SEQUENCE: 19
347   aaatgtgttt ctacaatg                                18
350 <210> SEQ ID NO: 20

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VERIFICATION SUMMARY

DATE: 07/11/2002

PATENT APPLICATION: US/10/018,497A

TIME: 13:30:45

Input Set : A:\EP.txt

Output Set: N:\CRF3\07112002\J018497A.raw

10 M:270 C: Current Application Number differs, Replaced Current Application No

10 M:271 C: Current Filing Date differs, Replaced Current Filing Date